

U.S. Patent Application Serial No. 09/551,597
Amendment dated October 7, 2003
Reply to Office Action of June 18, 2003

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

SUB B1

Claim 1 (currently amended): A page printer comprising:

a printer engine;

a memory which includes an input area, for storing input data, a compression area, for storing compressed drawing data, and a bit-map area, for storing expanded data;

a compression circuit, for compressing drawing data and for storing the resultant compressed drawing data in said compression area of said memory;

a expanding circuit, for expanding said compressed drawing data and for storing the resultant expanded drawing data in said bit-map area and said memory;

a video output circuit, for transferring said expanded drawing data to said printer engine;

and

a controller for analyzing said input data for each job and creating drawing data for a designated resolution,

wherein said controller changes said designated printing resolution to a lower one printing resolution, and repeats an input data analyzation process beginning with said input data entered for the first page of said job when said controller detects a memory shortage of said compressed area, and prints said job at the lower printing resolution.

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Claim 2 (original): A page printer according to claim 1, wherein said controller updates a memory variable indicating the remaining capacity of said compression area at each time said compression circuit writes said compressed drawing data in said compression area of said memory, and in accordance with said remaining capacity, determines whether said memory shortage has occurred.

Claim 3 (original): A page printer according to claim 1, further comprising: selection means which, to restart printing, selects either the first page of said job or a page whereat said memory shortage occurred,

wherein, when a page whereat said memory shortage occurred is selected, said controller begins the analyzation of input data for said page whereat said memory shortage occurred.

Claim 4 (currently amended): A page printer according to claim 1, further
A page printer comprising:
a printer engine;
a memory which includes an input area, for storing input data, a compression area, for
storing compressed drawing data, and a bit-map area, for storing expanded data;
a compression circuit, for compressing drawing data and for storing the resultant
compressed drawing data in said compression area of said memory;
a expanding circuit, for expanding said compressed drawing data and for storing the

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resultant expanded drawing data in said bit-map area and said memory;

a video output circuit, for transferring said expanded drawing data to said printer engine;
and

a controller for analyzing said input data for each job and creating drawing data for a
designated resolution,

wherein said controller changes said designated resolution to a lower one, and repeats an
input data analyzation process beginning with said input data entered for the first page of said job
when said controller detects a memory shortage of said compressed area,

wherein said controller creates a resolution change message to print on said resolution
change page.

Claim 5 (currently amended): A page printer according to claim 1

A page printer comprising:

a printer engine;

a memory which includes an input area, for storing input data, a compression area, for
storing compressed drawing data, and a bit-map area, for storing expanded data;

a compression circuit, for compressing drawing data and for storing the resultant
compressed drawing data in said compression area of said memory;

a expanding circuit, for expanding said compressed drawing data and for storing the
resultant expanded drawing data in said bit-map area and said memory;

a video output circuit, for transferring said expanded drawing data to said printer engine;

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and

a controller for analyzing said input data for each job and creating drawing data for a designated resolution,

wherein said controller changes said designated resolution to a lower one, and repeats an input data analyzation process beginning with said input data entered for the first page of said job when said controller detects a memory shortage of said compressed area,

wherein said controller displays a resolution change message on a display panel.

Claim 6 (original): A page printer according to claim 1, wherein said controller has an analyze pointer for indicating an analyze position of said inputted data for said job and initializes said analyze pointer when detects said memory shortage.

Claim 7 (currently amended): A page printer control method comprising the steps of:
storing, for each job, input data in an input area of a memory;
analyzing said input data for each job, compressing drawing data at a designated resolution, and storing the resultant compressed drawing data in a compression area of said memory;

expanding said compressed drawing data stored in said compression area in said memory, and storing the resultant expanded drawing data in a bit-map area of said memory; and transferring said expanded drawing data stored in said bit-map area of said memory to a printer engine,

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wherein said analyzing step includes the steps of

detecting whether a memory shortage of said compressed area for one page, has occurred,

and

changing said designated printing resolution to a lower printing resolution one, and
repeating an input data analyzation process beginning with said input data entered for the first
page of said job when said memory shortage is detected, and printing said job at the lower
printing resolution.